



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/757,015

01/08/2001

Sajid Ahmed

53296-2

7094

22504

7590

11/22/2006

DAVIS WRIGHT TREMAINE, LLP
2600 CENTURY SQUARE
1501 FOURTH AVENUE
SEATTLE, WA 98101-1688

EXAMINER

BROWN JR, NATHAN H

ART UNIT

PAPER NUMBER

2121

DATE MAILED: 11/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/757,015	Applicant(s) AHMED, SAJID	
	Examiner Nathan H. Brown, Jr.	Art Unit 2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE (3) MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Examiner's Detailed Office Action

1. This Office is responsive to application 09/757,015, filed August 16, 2006.
2. Claims 6-26 are pending.
3. Claims 6, 7, 9-11, 15, 16, 18-21, 24, 25 are amended while claim 26 is new.
4. Claims 6-25 stand rejected from the previous examination.

Claims 6-10, 12-14, 15-19, and 21-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 6-10, 12-19, and 21-25 are directed towards a computer implemented method for providing a ranked set of alternatives according to likelihood. However, despite being implemented on a computer, claimed method is directed to a manipulation of abstract ideas. Specifically, claimed *alternatives* are just abstract terms not limited to a representation of real-world objects. Therefore, producing a ranked set of alternatives is an abstract idea and can not be seen as a real-world result. Abstract ideas (see *Warmerdam*, 33 F.3d at 1360, 31 USPQ2d at 1759) or mere manipulation of abstract ideas (see *Schrader*, 22 F.3d at 292-93, 30 USPQ2d at 1457-58) are not patentable. A diagnosis or an expert opinion is still considered to be abstract, since it is not related to any practical application.

The word "diagnosis" is not considered to require a tangible result since, according to Merriam Webster's Collegiate Dictionary (10th Ed.), a diagnosis is an "investigation or analysis of the

Art Unit: 2121

cause or nature of a condition, situation, or problem” or the “statement or conclusion from such an analysis”. As such, a diagnosis can be of an abstract problem or situation. Therefore, a diagnosis is not necessarily a practical application that is tied to any real world result and the claims are thus not directed to statutory subject matter. As for the expert opinion, it too can be directed to abstract problems and, as such, is also not directed to statutory subject matter.

Claims 7-10 and 16-19 are rejected as being depended on claims 6 and 15 correspondingly, and not fixing the problem of being directed to a manipulation of abstract ideas.

Claims 6-9, 11-14 and 24 are rejected under 35 U.S.C. 103(a) as being obvious over Altschuler et al USPN 4,872,122 "Interactive statistical system and method for predicting expert decisions" (Oct. 3, 1989) in view of Lawrence et al USPN 6,272,481 "Hospital-based integrated medical computer system for processing medical and patient information using specialized functional modules" (Filed Sep. 14, 1998).

Regarding claim 6:

Altschuler et al teaches,

- A method for ranking a set of alternatives (Fig. 6, column 10, lines 3-7) according to likelihood (column 4, lines 42-54)
- (a) configuring, in one or a plurality of electronic databases (column 9, Lines 5-10) stored in a storage device of a computer, a set of alternatives, a query set comprising at least one query (column 3, Lines 11-21), and a set of primary bias values (Abstract), wherein each primary bias value directly associates a particular query with a particular alternative of the set of alternatives,

Art Unit: 2121

and reflects at least one human expert's prior conception of the degree of predictive value of the query for the particular alternative relative to others

- (b) inputting a user's response to the query into the computer (Fig. 1A, item 12)
- (c) ranking, using a software program (column 2, Lines 47-57) stored on the storage device to receive and process the user's response, the alternatives according to relative Likelihood, based at least in part on the set of primary bias values (Fig. 6; column 10, lines 24-44)

However, Altschuler et al doesn't explicitly teach using a software program stored on the storage device that is operative with a processor of the computer while Lawrence et al teaches,

- using a software program stored on the storage device that is operative with a processor Of the computer (Abstract; Fig. 3)

Motivation - The portions of the claimed method would have been a highly desirable feature in this art for processing medical and patient information and for evolving medical knowledge, diagnoses and prognoses (Lawrence et al, column 2, lines 51-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify Altschuler et al as taught by Lawrence et al for the purpose of processing medical/patient information.

Regarding claim 7:

The rejection of claim 7 is similar to that for claim 6 as recited above since the stated Limitations of the claim are set forth in the references. Claim 7's limitations difference is taught in Altschuler et al:

- ranking the set of alternatives further comprises querying the one or more electronic databases to generate at least one secondary bias value that is based on the corresponding primary bias value and the response to the query, wherein each secondary bias value is associated with a

Art Unit: 2121

particular alternative of the set of alternatives, and reflects the expert prior conception of the degree of predictive value of the query and response for the particular alternative relative to others, and wherein ranking is based, at least in part, on the secondary bias values, or at least in part on a combination of the primary and secondary bias values (column 10, Lines 7-12)

Regarding claims 8:

The rejection of claim 8 is similar to that for claim 7 as recited above since the stated Limitations of the claim are set forth in the references. Claim 8's limitations difference is taught in Altschuler et al

- generating the second bias values involves increasing, decreasing or conserving the corresponding primary bias values based on the response to the query (column 3, Lines 48-60)

Regarding claims 9:

The rejection of claim 9 is similar to that for claim 7 as recited above since the stated Limitations of the claim are set forth in the references. Claim 9's Limitations difference is taught in Altschuler et al:

- wherein the query set comprises a plurality of queries, and wherein ranking the alternatives involves summing (column 13, lines 13-46) and averaging (column 5, Lines 45-48) of at least one of primary and secondary bias values

Regarding claims 11:

The rejection of claim 11 is similar to that for claim 6 as recited above since the stated Limitations of the claim are set forth in the references. Claim 11's Limitations difference is taught in Altschuler et al

- wherein the set of alternatives is a set of alternate medical diagnoses or conditions, wherein the expert is a medical expert (Abstract), and wherein ranking the alternatives provides a list of

Art Unit: 2121

alternate medical diagnoses or conditions, ranked according to Likelihood (column 12, Lines 12-19)

Regarding claim 12:

Altschuler et al teaches,

- A computer (column 11, lines 14-31) apparatus for ranking a set of alternatives (Fig. 6., column 10, Lines 3-7) according to Likelihood (column 4, Lines 42-54), comprising:
 - (a) a computer and at least one storage device connected thereto (column 11, Lines 14 - 18),
 - (b) a database (column 9, lines 5-10) of alternatives (Fig. 6., column 10, Lines 3-7), comprising a stored set of alternatives
 - (c) a database of queries (column 3, Lines 11-21), comprising a stored set of at least one query;
 - (d) a primary bias value database, comprising a stored set of primary bias values (Abstract), wherein each primary bias value directly associates a particular query with a particular alternative of the set of alternatives, and reflects at least one human expert's prior conception of the degree of predictive value of the query for the particular alternative relative to others
 - (e) a stored software program (column 2, lines 47-57) to receive and process a user's response to the query, and to rank the alternatives according to relative likelihood based, at least in part, on the set of primary bias values

However, Altschuler et al doesn't explicitly teach a computer having a processor or a stored software program operative with the processor while Lawrence et al teaches,

- a computer having a processor (Abstract, Fig. 3)
- a stored software program operative with the processor (column 6, Lines 3-9)

Art Unit: 2121

Motivation - The portions of the claimed apparatus would have been a highly desirable feature in this art for processing medical and patient information and for evolving medical knowledge, diagnoses and prognoses (Lawrence et al, column 2, Lines 51-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify Altschuler et al as taught by Lawrence et al for the purpose of processing medical/patient information.

Regarding claim 13:

The rejection of claim 13 is similar to that for claim 12 as recited above since the stated Limitations of the claim are set forth in the reference. Claim 13's Limitations difference is taught in Lawrence et al.

- a user database, comprising user information, wherein the program is operative with the processor to store, access and update user information when new user information is received (column 11 , lines 49-62)

Regarding claim 14:

The rejection of claim 14 is similar to that for claim 13 as recited above since the stated limitations of the claim are set forth in the reference. Claim 14's limitations difference is taught in Lawrence et al:

- the program is further operative with the processor to track the user information (column 5, Lines 18-33)

Regarding claim 24:

The rejection of claim 24 is the same as that for claims 12 and 7 as recited above since the stated Limitations of the claim are set forth in the references.

Art Unit: 2121

Claims 15-18, 20-23 and 25 are rejected under 35 U.S.C. 103(a) as being obvious over Altschuler et al in view of Lawrence et al and in further view of Ridgeway et al USPN 6,012,052 "Methods and apparatus for building resource transition probability models for use in pre-fetching resources, editing resource link topology, building resource link topology templates, and collaborative filtering" (Jan. 4, 2000).

Regarding claim 15:

Altschuler et al teaches,

- A method for ranking a set of alternatives (Fig. 6., column 10, Lines 3-7) according to Likelihood (column 4, Lines 42-54), comprising'.
 - (a) configuring, in one or a plurality of electronic databases (column 9, Lines 5-10), a set of alternatives, a query set comprising at least one query (column 3, lines 11-21), and a set of primary bias values (Abstract), wherein each primary bias value directly associates a particular query with a particular alternative of the set of alternatives, and reflects at least one human expert's prior conception of the degree of predictive value of the query for the particular alternative relative to others
 - (b) inputting a user's response to the query into a computer through a user subsystem (Fig. IA, item 12)
 - (d) ranking, using a software program (column 2, Lines 47-57) to receive and process the user's response, the alternatives according to relative Likelihood, based at least in part on the set of primary bias values (Fig. 6., column 10, Lines 24-44)

However, Altschuler et al doesn't explicitly teach a method over a wide-area network, a plurality of electronic databases of a server, (c) transmitting the user's response to the server

Art Unit: 2121

over the wide-area network, a software program that is operative with a processor of the server or (e) transmitting the ranked set of alternatives to the user subsystem over the wide-area network, whereby the set of alternatives is ranked according to likelihood while Lawrence et al teaches

- a plurality of electronic databases (Fig. 3, items 317, 321 , 323)
- a software program that is operative with a processor (column 6, lines 3-9)

Ridgeway et al teaches,

- A method (Title), over a wide-area network (column 1, lines 26-33)
- (c) transmitting the user's response to the server (column 24, Lines 20-27) over the wide-area network
- a database of a server (Fig. 5., column 18, Lines 21-36) and a software program that is operative with a processor of the server
- (e) transmitting the ranked set of alternatives to the user subsystem over the wide- area network, whereby the set of alternatives is ranked according to Likelihood (column 30, Lines 64-67., column 31 , Lines 1-6)

Motivation - The portions of the claimed method would have been a highly desirable feature in this art for processing medical and patient information and for evolving medical knowledge, diagnoses and prognoses (Lawrence et al, column 2, lines 51-54) as well as using resource pre-fetching to better utilize processing resources and bandwidth of communications channels (Ridgeway et al, column 4, Lines 11-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify Altschuler et al as taught by Lawrence et al and Ridgeway et al

Art Unit: 2121

for the purpose of processing medical/patient information as well as better utilizing resources/communications bandwidth.

Regarding claim 16:

The rejection of claim 16 is similar to that for claim 15 as recited above since the stated Limitations of the claim are set forth in the references. Claim 16's Limitations difference is taught in Altschuler et al

- ranking the set of alternatives further comprises querying the one or more electronic databases to generate at least one secondary bias value that is based on the corresponding primary bias value and the response to the query, wherein each secondary bias value is associated with a particular alternative of the set of alternatives, and reflects the expert prior conception of the degree of predictive value of the query and response for the particular alternative relative to others, and wherein ranking is based, at least in part, on the secondary bias values, or at least in part on a combination of the primary and secondary bias values (column 10, Lines 7-12)

Ridgeway et al:

- a database of the server (Fig. 5, column 18, Lines 21-36)

Regarding claim 17:

The rejection of claim 17 is similar to that for claims 16 and 8 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 18:

The rejection of claim 18 is similar to that for claims 16 and 9 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 20:

Art Unit: 2121

The rejection of claim 20 is similar to that for claims 15 and 11 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 21:

Altschuler et al teaches,

- A computer apparatus for ranking a set of alternatives (Fig. 6., column 10, Lines 3-7) according to Likelihood (column 4, Lines 42-54), comprising.
- (b) a database of alternatives (column 9, Lines 5-10), comprising a stored set of alternatives
- (c) a database of queries (column 3, Lines 11-21), comprising a stored set of at least one query
- (d) a primary bias value (Abstract) database, comprising a stored set of primary bias values, wherein each primary bias value directly associates a particular query with a particular alternative of the set of alternatives, and reflects at least one human expert's prior conception of the degree of predictive value of the query for the particular alternative relative to others
- (e) a stored software program (column 2, Lines 47-57) to receive and process, from a user subsystem, a user's response to the query, and to rank the alternatives according to relative likelihood based, at least in part, on the set of primary bias values (Fig. 6, column 10, Lines 24-44)

However, Altschuler et al doesn't explicitly teach a computer network apparatus, (a) a server having a processor and at least one storage device connected to the processor or a stored software program operative with the processor for transmission to the user subsystem while Lawrence et al teaches

- A computer network apparatus (Abstract; Fig. 3)
- a plurality of electronic databases (Fig. 3, items 317, 321, 323)

Art Unit: 2121

- a stored software program operative with the processor (column 6, Lines 3-9) Ridgeway et al teaches,
- A computer network apparatus (column 1, Lines 26-33)
- (a) a server having a processor and at least one storage device connected to the processor (Fig. 5., column 18, Lines 21-36)
- (e) a stored software program operative with the processor to receive and process, from a user subsystem, a user's response to the query, and to rank the alternatives according to relative Likelihood based (column 30, Lines 64-67*, column 31 , Lines 1-6), at least in part, on the set of primary bias values, for transmission to the user subsystem (column 24, lines 20-27)

Motivation - The portions of the claimed apparatus would have been a highly desirable feature in this art for processing medical and patient information and for evolving medical knowledge, diagnoses and prognoses (Lawrence et al, column 2, Lines 51-54) as well as using resource pre-fetching to better utilize processing resources and bandwidth of communications channels (Ridgeway et al, column 4, lines 1 1-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify Altschuler et al as taught by Lawrence et al and Ridgeway et al for the purpose of processing medical/patient information as well as better utilizing resources/communications bandwidth.

Regarding claim 22:

The rejection of claim 22 is the same as that for claims 21 and 13 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 23:

Art Unit: 2121

The rejection of claim 23 is the same as that for claims 21 and 14 as recited above since the stated Limitations of the claim are set forth in the reference.

Regarding claim 25:

The rejection of claim 25 is the same as that for claims 21 and 7 as recited above since the stated Limitations of the claim are set forth in the reference.

Claim 10 is rejected under 35 U.S.C. 103(a) as being obvious over Altschuler et al in view of Lawrence et al.

Regarding claim 10:

Altschuler et al teaches,

- A method for ranking a set of alternatives (Fig. 6, column 10, Lines 3-7) according to Likelihood (column 4, lines 42-54)
- (a) configuring, in one or a plurality of electronic databases (column 9, Lines 5-10) stored in a storage device of a computer, a set of alternatives, a query set comprising at least one query (column 3, Lines 11-21), and a set of primary bias values (Abstract), wherein each primary bias value directly associates a particular query with a particular alternative of the set of alternatives, and reflects at least one human expert's prior conception of the degree of predictive value of the query for the particular alternative relative to others
- (b) inputting a user's response to the query into the computer (Fig. 1A, item 12)
- (c) ranking, using a software program (column 2, Lines 47-57) stored on the storage device to receive and process the user's response, the alternatives according to relative Likelihood, based at least in part on the set of primary bias values (Fig. 6., column 10, Lines 24-44)

Art Unit: 2121

- ranking the set of alternatives further comprises querying the one or more electronic databases to generate at least one secondary bias value that is based on the corresponding primary bias value and the response to the query, wherein each secondary bias value is associated with a particular alternative of the set of alternatives, and reflects the expert prior conception of the degree of predictive value of the query and response for the particular alternative relative to others, and wherein ranking is based, at least in part, on the secondary bias values, or at least in part on a combination of the primary and secondary bias values (column 10, Lines 7-12)

Altschuler et al doesn't explicitly teach using a software program stored on the storage device that is operative with a processor of the computer and generating secondary bias values, and ranking the alternatives is achieved, at least in part, by using algorithm 42 while Lawrence et al teaches,

- using a software program stored on the storage device that is operative with a processor of the computer (Abstract, Fig. 3).

However, Examiner takes Official Notice that generating secondary bias values, and ranking the alternatives is achieved, at least in part, by using algorithm 42 is conventional and well-known (Islam et al, USPN 6, 1 15, 712, "Mechanism for combining data analysis algorithms with databases on the internet").

Motivation - The portions of the claimed method would have been a highly desirable feature in this art for processing medical and patient information and for evolving medical knowledge, diagnoses and prognoses (Lawrence et al, column 2, Lines 51-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify Altschuler et al as taught by Lawrence et al for the purpose of processing medical/patient information. Furthermore, it would have been obvious to one of

Art Unit: 2121

ordinary skill in the art at the time the invention was made to generate secondary bias values, and rank the alternatives, by using algorithm 42, at least in part, since Examiner takes Official Notice that generating secondary bias values, and ranking the alternatives is achieved, at least in part, by using algorithm 42 is conventional and well-known to at least Islam et al.

Claim 19 is rejected under 35 U.S.C. 103(a) as being obvious over Altschuler et al in view of Lawrence et al and in further view of Ridgeway et al.

Regarding claim 19:

Altschuler et al teaches,

- A method for ranking a set of alternatives (Fig. 6, column 10, Lines 3-7) according to Likelihood (column 4, Lines 42-54), comprising:
 - (a) configuring, in one or a plurality of electronic databases (column 9, Lines 5-10), a set of alternatives, a query set comprising at least one query (column 3, Lines 11-21), and a set of primary bias values (Abstract); wherein each primary bias value directly associates a particular query with a particular alternative of the set of alternatives, and reflects at least one human expert's prior conception of the degree of predictive value of the query for the particular alternative relative to others
 - (b) inputting a user's response to the query into a computer through a user subsystem (Fig. 1A, item 12)
 - (d) ranking, using a software program (column 2, Lines 47-57) to receive and process the user's response, the alternatives according to relative Likelihood, based at least in part on the set of primary bias values (Fig. 6., column 10, Lines 24-44)

Art Unit: 2121

- ranking the set of alternatives further comprises querying the one or more electronic databases to generate at least one secondary bias value that is based on the corresponding primary bias value and the response to the query, wherein each secondary bias value is associated with a particular alternative of the set of alternatives,

and reflects the expert prior conception of the degree of predictive value of the query and response for the particular alternative relative to others, and wherein ranking is based, at least in part, on the secondary bias values, or at least in part on a combination of the primary and secondary bias values (column 10, Lines 7-12)

Altschuler et al doesn't explicitly teach a method over a wide-area network, a plurality of . electronic databases of a server, (c) transmitting the user's response to the server over the wide-area network, a software program that is operative with a processor of the server, (e) transmitting the ranked set of alternatives to the user subsystem over the wide-area network, whereby the set of alternatives is ranked according to Likelihood and generating secondary bias values, and ranking the alternatives is achieved, at least in part, by using algorithm 42 while Lawrence et al teaches

- a plurality of electronic databases (Fig. 3, items 317, 321 , 323)

- a software program that is operative with a processor (column 6, lines 3-9)

Ridgeway et al teaches,

- A method (Title), over a wide-area network (column 1, lines 26-33)

- (c) transmitting the user's response to the server (column 24, Lines 20-27) over the wide-area network

- a database of a server (Fig. 5., column 18, lines 21 -36) and a software program that is operative with a processor of the server

Art Unit: 2121

- (e) transmitting the ranked set of alternatives to the user subsystem over the wide- area network, whereby the set of alternatives is ranked according to Likelihood (column 30, Lines 64-67, column 31 , lines 1-6).
- a database of the server (Fig. 5., column 18, Lines 21-36).

However, Examiner takes Official Notice that generating secondary bias values, and ranking the alternatives is achieved, at least in part, by using algorithm 42 is conventional and well-known (Islam et al, USPN 6, 1 15, 712, "Mechanism for combining data analysis algorithms with databases on the internet").

Motivation - The portions of the claimed method would have been a highly desirable feature in this art for processing medical and patient information and for evolving medical knowledge, diagnoses and prognoses (Lawrence et al, column 2, Lines 51-54) as well as using resource pre-fetching to better utilize processing resources and bandwidth of communications channels (Ridgeway et al, column 4, Lines 1 1-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify Altschuler et al as taught by Lawrence et al and Ridgeway et al for the purpose of processing medical/patient information as well as better utilizing resources/communications bandwidth. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to generate secondary bias values, and rank the alternatives, by using algorithm 42, at least in part, since Examiner takes Official Notice that generating secondary bias values, and ranking the alternatives is achieved, at least in part, by using algorithm 42 is conventional and well-known to at least Islam et al.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 6-14, 24, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by *Altschuler et al.* (USPN 4,872,122).

Regarding claim 6. *Altschuler et al.* teach a computer implemented method for providing a diagnosis to a user (see Abstract), comprising:

(a) configuring, in one or a plurality of electronic databases (see col. 4, lines 3-8, Examiner interprets “statistical base” one or a plurality of electronic databases.) to be stored in a storage device of a computer (see col. 2, lines 57), a set of alternative diagnoses (see Abstract, Examiner interprets a “a set of output actions for combinatory situations such as medical diagnosis defined by a plurality of input parameters” to be alternative diagnoses.), a query set comprising at least one query (see Abstract, Examiner interprets “A plurality of structures may be established, one for each individual expert, allowing interrogation of any or all of the decision making structures...” to be a query set comprising at least one query (“interrogation”).), and a set of primary bias values (see Abstract, “Random values of the input parameters are generated, which includes biasing the random values by a function of a preceding response.”, Examiner interprets the “function of a preceding response” to map a

Art Unit: 2121

preceding response to a bias value and the primary bias values to be those included in random "values of the input parameters".), wherein the set of primary bias values comprises, with respect to each query, a corresponding set of alternative diagnosis-specific primary bias values each directly associating the particular query with each respective alternative diagnosis (see Abstract and col. 3, lines 51-55 and col. 4, lines 42-54, Examiner interprets the iterative use of the "function of a preceding response" to produce a set of biased random values for each response for each "subsequent question" (query) in each branch of the tree created by the simulator, thus associating a particular query with each respective alternative "response" (diagnosis).), and each bias value directly reflecting at least one human expert's prior conception of the degree of predictive value of the query for the particular alternative diagnosis relative to others (see col. 3, lines 51-55 and col. 4, lines 42-54, Examiner interprets "The chi square test is used to determine whether a given variable is significant in the expert's choice of responses to the questions..." to mean that a given variable including a bias value reflects, by its significance, at least one human expert's prior conception of the degree of predictive value of the query for the particular alternative diagnosis relative to others.);

(b) inputting a user's-response to the at least one query into the computer (see col. 7, lines 62-63, Examiner interprets "display of block 52 to be a software subsystem.); and

(c) ranking, using a software program stored on the storage device that is operative with a processor of the computer to receive and process the user's response, and the alternative diagnoses according to relative likelihood, based at least in part on the set

Art Unit: 2121

of primary bias values to provide a diagnosis comprising a ranked set of alternative diagnoses (*see col. 10, lines 3-12, Examiner interprets "recommendations" to be alternative diagnoses. Examiner interprets "action probabilities...arranged in the order of descending probabilities" to be a ranking for the set of alternative diagnoses according to relative likelihood based, at least in part, on the set of primary bias values (input parameters).); and*

(d) providing the diagnosis, or a portion thereof, to a user (*see col. 10, lines 3-12, Examiner interprets "the modal path is displayed first" to mean providing the diagnosis, or a portion thereof, to a user.*).

Regarding claim 12. *Altschuler et al.* teach a computer apparatus (*see col. 2, line 57*) for ranking a set of alternatives according to likelihood (*see above*), comprising:

(a) a computer having a processor and at least one storage device connected thereto (*see col., line 57, Examiner interprets a "VAX 780" to be a computer having a processor and at least one storage device connected thereto.*);

(b) a database of alternatives, comprising a stored set of alternatives (*see col. 9, lines 5-22, Examiner interprets "database for public use" to be a database of alternatives (user cases), comprising a stored set of alternatives (expert recommendations for a particular case).*);

(c) a database of queries, comprising a stored set of at least one query (*see col. 5, lines 1-14, Examiner interprets "Each of these experts would...build his own tree of*

Art Unit: 2121

analysis.” to assert a set of analysis “trees”. Examiner interprets the set of analysis trees to be a database of queries, comprising a stored set of at least one query.);

(d) a primary bias value database, comprising a stored set of primary bias values (*see col. 5, lines 55-62, Examiner notes that “a case” contains “input parameters” which are primary biased values (see rejection of claim 6, above), therefore the set of user cases is a primary bias value database.*), wherein each primary bias value directly associates a particular query with a particular alternative of the set of alternatives (*see col. 5, lines 53-62, Examiner interprets “interrogation or questioning of the system by the user” to use “a case” having a set of “experts whose system has been made public” (see above) to associate queries in the expert analysis trees with “the preference of the expert...affected by variations of one of the input parameters” (which are primary biased values).*), and reflects at least one human expert's prior conception of the degree of predictive value of the query for the particular alternative relative to others (*see above, Examiner interprets “expert” to be a human expert.*); and a stored software program operative with the processor to receive and process a user's response to the query (*see col. 2, lines 54-57, Examiner interprets the “system ... written in FORTRAN 77 for a VAX 780” to be a stored software program operative with the processor to receive and process a user's response to the query.*), and to rank the alternatives according to relative likelihood based, at least in part, on the set of primary bias values (*see col. 10, lines 3-12, Examiner interprets “recommendations” to be alternative diagnoses. Examiner interprets “action probabilities...arranged in the order of descending probabilities” to be a ranking for the set of alternative diagnoses*

Art Unit: 2121

according to relative likelihood based, at least in part, on the set of primary bias values (input parameters).).

Regarding claim 7. (Currently amended) *Altschuler et al.* teach the method of claim 6, wherein ranking the set of alternative diagnoses further comprises querying the one or more electronic databases to generate at least one secondary bias value that is based on the corresponding primary bias value and the response to the query (*see* Abstract and col. 3, lines 51-55 and col. 4, lines 42-54, *Examiner interprets the iterative use of the "function of a preceding response" to produce a set of biased random values for each response for each "subsequent question" (query) in each branch of the tree created by the simulator to be querying at least one database (see col. 4, lines 3-8, "statistical base") to generate at least one secondary bias value that is based on the corresponding primary bias value and the response to the query.*), wherein each secondary bias value is associated with a particular alternative of the set of alternatives (*see above, Examiner interprets "each branch of the tree created by the simulator" to be a set of alternative diagnoses for a particular alternative diagnosis alternative.*), and reflects the expert prior conception of the degree of predictive value of the query and response for the particular alternative diagnosis relative to others (*see col. 3, lines 51-55 and col. 4, lines 42-54, Examiner interprets "The chi square test is used to determine whether a given variable is significant in the expert's choice of responses to the questions..." to mean that a given variable including a bias value reflects, by its significance, the expert's prior conception of the degree of predictive value of the query and response for the particular alternative diagnosis.*), and wherein ranking is based, at least in part, on the secondary bias values, or at least in part on a combination of the primary and secondary bias values (*see col. 10, lines 3-12, Examiner interprets "recommendations" to be alternative*

Art Unit: 2121

diagnoses and “the modal path” to be path through the decision tree with the highest relative likelihood, based at least in part on the set of primary bias values (i.e., input parameters).).

Regarding claim 8. (Previously presented) *Altschuler et al.* teach the method of claim 7, wherein generating the secondary bias values involves increasing, decreasing or conserving the corresponding primary bias values based on the response to the query (*see col. 3, lines 55-56, Examiner interprets “the system avoids presenting variable values that are inconsistent with the answers previously given” to mean generating the secondary bias values involves conserving the corresponding primary bias values.*).

Regarding claim 9. (Currently amended) *Altschuler et al.* teach the method of claim 7, wherein the query set comprises a plurality of queries, and wherein ranking the alternatives alternative diagnoses involves summing and averaging of at least one of primary and secondary bias values (*see col. 11, 32-49, Examiner interprets “variables (i,j)” to be one of primary or secondary bias values.*).

Regarding claim 11. (Currently Amended) *Altschuler et al.* teach the method of claim 6, wherein the set of alternative diagnoses is a set of alternate medical diagnoses (*see Abstract*) or conditions, a set of alternative machine problems or conditions, or a set of software problems or conditions, wherein the expert is a medical expert (*see col. 2, lines 36-46*), a machine expert or a software expert, respectively, and wherein ranking the alternative diagnoses alternatives provides a list of alternate medical diagnoses or conditions (*see col. 10, lines 3-12, Examiner interprets “all chains of reasoning” to comprise a list of all alternate medical diagnoses.*), alternative machine problems or conditions or alternative software problems or conditions, respectively, ranked according to likelihood (*see col. 10,*

Art Unit: 2121

lines 3-12, *Examiner interprets "all chains of reasoning" to comprise a list of all alternate medical diagnoses "arranged in the order of descending probabilities", i.e., ranked according to likelihood.*).

Regarding claim 13. (Previously presented) *Altschuler et al.* teach the apparatus of claim 12, further comprising a user database, comprising user information (*see* Fig. 4, item 94, col. 8, lines 50-54, *Examiner interprets "user file" to be a user database.*), wherein the program is operative with the processor to store, access and update user information when new user information is received (*col. 8, lines 19-27, Examiner interprets "adding personnel and privilege statuses to the system as well as other system maintenance functions" to comprise storing, accessing, and updating user information when new user information is received.*).

Regarding claim 14. (Previously presented) *Altschuler et al.* teach the apparatus of claim 13, wherein the program is further operative with the processor to track the user information (*col. 8, lines 19-27, Examiner interprets "other system maintenance functions" to comprise tracking the user information.*).

Regarding claim 24. (Currently amended) *Altschuler et al.* teach the apparatus of claim 12, wherein ranking the set of alternative diagnoses alternatives further-comprises querying at least one database to generate at least one secondary bias value that is based on the corresponding primary bias value and the response to the query (*see* Abstract and col. 3, lines 51-55 and col. 4, lines 42-54, *Examiner interprets the iterative use of the "function of a preceding response" to produce a set of biased random values for each response for each*

Art Unit: 2121

“subsequent question” (query) in each branch of the tree created by the simulator to be querying at least one database (see col. 4, lines 3-8, “statistical base”) to generate at least one secondary bias value that is based on the corresponding primary bias value and the response to the query.), wherein each secondary bias value is associated with a particular alternative diagnosis alternative of the set of alternative diagnoses alternatives (see above, Examiner interprets “each branch of the tree created by the simulator” to be a set of alternative diagnoses for a particular alternative diagnosis alternative.), and reflects the expert prior conception of the degree of predictive value of the query and response for the particular alternative diagnosis alternative relative to others (see col. 3, lines 51-55 and col. 4, lines 42-54, Examiner interprets “The chi square test is used to determine whether a given variable is significant in the expert's choice of responses to the questions...” to mean that a given variable including a bias value reflects, by its significance, the expert's prior conception of the degree of predictive value of the query and response for the particular alternative diagnosis.), and wherein ranking is based, at least in part, on the secondary bias values, or at least in part on a combination of the primary and secondary bias values (see col. 10, lines 3-12, Examiner interprets “recommendations” to be alternative diagnoses and “the modal path” to be path through the decision tree with the highest relative likelihood, based at least in part on the set of primary bias values (i.e., input parameters).).

Regarding claim 26. (New) *Altschuler et al.* teach the method of claim 11, wherein the set of alternatives diagnoses is a set of alternate medical diagnoses (see Abstract) or conditions, wherein the expert is a medical expert (see col. 2, lines 36-46), and wherein ranking the alternative diagnoses provides a list of alternate medical diagnoses or conditions, ranked according to likelihood (see col. 10, lines 3-12, Examiner interprets “all chains of

Art Unit: 2121

reasoning” to comprise a list of all alternate medical diagnoses “arranged in the order of descending probabilities”, i.e., ranked according to likelihood.).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Altschuler et al.* in view of *Ridgeway et al.* (USPN 6,012,052).

Regarding claim 15. *Altschuler et al.* teach a computer implemented method, for providing a ranked set of alternative diagnoses alternatives-according to likelihood (*see col. 10, lines 3-12, Examiner interprets “action probabilities...arranged in the order of descending probabilities” to be a ranking for the set of alternative diagnoses according to relative likelihood.*), comprising:

(a) configuring, in one or a plurality of electronic databases of a server, a set of alternatives alternative diagnoses (*see col. 4, lines 3-8, Examiner interprets “statistical base” one or a plurality of electronic databases.*), a query set comprising at least one query (*see Abstract, Examiner interprets “A plurality of structures may be established,*

Art Unit: 2121

one for each individual expert, allowing interrogation of any or all of the decision making structures... ” to be a query set comprising at least one query (“interrogation”).), and a set of primary bias values (see Abstract, “Random values of the input parameters are generated, which includes biasing the random values by a function of a preceding response.”, Examiner interprets the “function of a preceding response” to map a preceding response to a bias value and the primary bias values to be those included in random “values of the input parameters”.), wherein the set of primary bias values comprises, with respect to each query, a corresponding set of alternative diagnosis-specific primary bias values each directly associating the particular query with each respective alternative diagnosis (see col. 5, lines 53-62, Examiner interprets “interrogation or questioning of the system by the user” to use “a case” having a set of “experts whose system has been made public” (see above) to associate queries in the expert analysis trees with “the preference of the expert...affected by variations of one of the input parameters” (which are primary biased values).), and each bias value directly reflecting at least one human expert's prior conception of the degree of predictive value of the query for the particular alternative diagnosis relative to others (see above, Examiner interprets “expert” to be a human expert.);

(b) inputting a user's response to the at least one query into a computer through a user subsystem (see col. 7, lines 62-63, Examiner interprets “display of block 52 to be a software subsystem.”); and

(d) ranking, using a software program stored on the storage device that is operative with a processor of the computer to receive and process the user's response (see col. 10, lines 3-12, Examiner interprets “recommendations” to be alternative diagnoses and

Art Unit: 2121

“the modal path” to be path through the decision tree with the highest relative likelihood, based at least in part on the set of primary bias values (i.e., input parameters).), and the alternative diagnoses according to relative likelihood, based at least in part on the set of primary bias values to provide a diagnosis comprising a ranked set of alternative diagnoses (Examiner interprets “action probabilities...arranged in the order of descending probabilities” to be a ranking for the set of alternative diagnoses according to relative likelihood based, at least in part, on the set of primary bias values (input parameters).).

Altschuler et al. do not teach the method over a wide-area network, comprising:

(c) transmitting the user's response to the server over the wide-area network; and

However, *Ridgeway et al.* do teach the method over a wide-area network (see), comprising:

(c) transmitting the user's response to the server over the wide-area network (see above, Examiner interprets “forwarded” to mean transmitted over the wide-area network.).

It would have been obvious at the time the invention was made to persons having ordinary skill in the art to combine *Altschuler et al.* with *Ridgeway et al.* to obtain methods and apparatus for using resource pre-fetching to better utilize processing resources and bandwidth of communications channels.

Art Unit: 2121

9. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Altschuler et al.*

Regarding claim 16. (Currently amended) *Altschuler et al.* teach the method of claim 15, wherein ranking the alternative diagnoses alternatives further comprises querying the one or more electronic databases of the server to generate at least one secondary bias value that is based on the corresponding primary bias value and the response to the query (*see* Abstract and col. 3, lines 51-55 and col. 4, lines 42-54, *Examiner interprets the iterative use of the "function of a preceding response" to produce a set of biased random values for each response for each "subsequent question" (query) in each branch of the tree created by the simulator to be querying at least one database (see col. 4, lines 3-8, "statistical base") to generate at least one secondary bias value that is based on the corresponding primary bias value and the response to the query.*), wherein each secondary bias value is associated with a particular alternative diagnoses alternatives of the set of alternative diagnoses alternatives (*see* above, *Examiner interprets "each branch of the tree created by the simulator" to be a set of alternative diagnoses for a particular alternative diagnosis alternative.*), and reflects the expert prior conception of the degree of predictive value of the query for the particular alternative diagnoses alternatives relative to others (*see* col. 3, lines 51-55 and col. 4, lines 42-54, *Examiner interprets "The chi square test is used to determine whether a given variable is significant in the expert's choice of responses to the questions..." to mean that a given variable including a bias value reflects, by its significance, the expert's prior conception of the degree of predictive value of the query and response for the particular alternative diagnosis.*), and wherein ranking is based, at least in part, on the secondary bias values, or at

Art Unit: 2121

least in part on a combination of the primary and secondary bias values (*see col. 10, lines 3-12, Examiner interprets "recommendations" to be alternative diagnoses and "the modal path" to be path through the decision tree with the highest relative likelihood, based at least in part on the set of primary bias values (i.e., input parameters).*).

Regarding claim 17. (Previously presented) *Altschuler et al.* teach the method of claim 16, wherein generating the secondary bias values involves increasing, decreasing or conserving the corresponding primary bias values based on the response to the query (*see col. 3, lines 55-56, Examiner interprets "the system avoids presenting variable values that are inconsistent with the answers previously given" to mean generating the secondary bias values involves conserving the corresponding primary bias values.*).

Regarding claim 18. (Currently amended) *Altschuler et al.* teach the method of claim 16, wherein the query set comprises a plurality of queries, and wherein ranking the alternative diagnoses alternatives involves summing and averaging of at least one of primary and secondary bias values (*see col. 11, 32-49, Examiner interprets "variables (i,j)" to be one of primary or secondary bias values.*).

Regarding claim 20. (Currently amended) *Altschuler et al.* teach the method of claim 15, wherein the set of alternative diagnoses is a set of alternate medical diagnoses (*see Abstract*) or conditions, a set of alternative machine problems or conditions, or a set of software problems or conditions, wherein the expert is a medical expert (*see col. 2, lines 36-46*), a machine expert or a software expert, respectively, and wherein ranking the alternative

Art Unit: 2121

diagnoses alternatives provides a list of alternate medical diagnoses (*see col. 10, lines 3-12, Examiner interprets "all chains of reasoning" to comprise a list of all alternate medical diagnoses.*) or conditions, alternative machine problems or conditions or alternative software problems or conditions, respectively, ranked according to likelihood (*see above, Examiner interprets "arranged in the order of descending probabilities" to mean ranked according to likelihood.*).

10. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Ridgeway et al.* in view of *Altschuler et al.*

Regarding claim 21. (Currently amended) *Ridgeway et al.* teach a computer network apparatus (*see col. 3, line 60 to col. 4, line 10*) for ranking a set of alternatives according to likelihood (*see col. 30, line 64 to col. 31, line 6*), comprising: (a) a server having a processor and at least one storage device connected to the processor (*see col. 4, lines 32-41, Examiner interprets "processing resources" to be a processor and "resource cache" to be at least one storage device connected to the processor.*).

Ridgeway et al. do not teach ranking a set of alternatives according to likelihood, comprising:

- (b) a database of alternatives, comprising a stored set of alternative diagnoses alternatives;
- (c) a database of queries, comprising a stored set of at least one query;
- (d) a primary bias value database, comprising a stored set of primary bias values, wherein the set of primary bias values comprises, with respect to each query, a

Art Unit: 2121

corresponding set of alternative diagnosis-specific primary bias values each directly associating the particular query with each respective alternative diagnosis, and each bias value directly reflecting reflects at least one human expert's prior conception of the degree of predictive value of the query for the particular alternative diagnosis relative to others; and

(e) a stored software program operative with the processor to receive and process, from a user subsystem, a user's response to the query, and to rank the alternative diagnoses alternatives according to relative likelihood based, at least in part, on the set of primary bias values, for transmission to the user subsystem.

Altschuler et al. do teach ranking a set of alternatives according to likelihood, comprising:

(b) a database of alternatives, comprising a stored set of alternative diagnoses alternatives (*see col. 4, lines 3-8, Examiner interprets "statistical base" one or a plurality of electronic databases.*);

(c) a database of queries, comprising a stored set of at least one query (*see col. 5, lines 1-14, Examiner interprets "Each of these experts would...build his own tree of analysis." to assert a set of analysis "trees". Examiner interprets the set of analysis trees to be a database of queries, comprising a stored set of at least one query*);

(d) a primary bias value database, comprising a stored set of primary bias values (*see Abstract, "Random values of the input parameters are generated, which includes biasing the random values by a function of a preceding response.", Examiner interprets the "function of a preceding response" to map a preceeding response to a bias value and the primary bias values to be those included in random "values of the input*

Art Unit: 2121

parameters".), wherein the set of primary bias values comprises, with respect to each query, a corresponding set of alternative diagnosis-specific primary bias values each directly associating the particular query with each respective alternative diagnosis (see Abstract and col. 3, lines 51-55 and col. 4, lines 42-54, Examiner interprets the iterative use of the "function of a preceding response" to produce a set of biased random values for each response for each "subsequent question" (query) in each branch of the tree created by the simulator, thus associating a particular query with each respective alternative "response" (diagnosis).), and each bias value directly reflecting reflects at least one human expert's prior conception of the degree of predictive value of the query for the particular alternative diagnosis relative to others (see col. 3, lines 51-55 and col. 4, lines 42-54, Examiner interprets "The chi square test is used to determine whether a given variable is significant in the expert's choice of responses to the questions..." to mean that a given variable including a bias value reflects, by its significance, at least one human expert's prior conception of the degree of predictive value of the query for the particular alternative diagnosis relative to others.); and

(e) a stored software program operative with the processor to receive and process, from a user subsystem, a user's response to the query, and to rank the alternative diagnoses alternatives according to relative likelihood based, at least in part, on the set of primary bias values, for transmission to the user subsystem (see col. 10, lines 3-12, Examiner interprets "recommendations" to be alternative diagnoses and "the modal path" to be path through the decision tree with the highest relative likelihood, based at least in part on the set of primary bias values (i.e., input parameters).).

Art Unit: 2121

Regarding claim 25. (Currently amended) *Ridgeway et al.* teach the apparatus of claim 21 (*see above*).

Ridgeway et al. do not teach: ranking the set of alternative diagnoses alternatives further-comprises querying at least one database to generate at least one secondary bias value that is based on the corresponding primary bias value and the response to the query, wherein each secondary bias value is associated with a particular alternative diagnosis alternative of the set of alternative diagnoses, and reflects the expert prior conception of the degree of predictive value of the query and response for the particular alternative diagnosis alternative relative to others, and wherein ranking is based, at least in part, on the secondary bias values, or at least in part on a combination of the primary and secondary bias values.

However, *Altschuler et al.* do teach: ranking the set of alternative diagnoses alternatives further-comprises querying at least one database to generate at least one secondary bias value that is based on the corresponding primary bias value and the response to the query (*see Abstract and col. 3, lines 51-55 and col. 4, lines 42-54, Examiner interprets the iterative use of the "function of a preceding response" to produce a set of biased random values for each response for each "subsequent question" (query) in each branch of the tree created by the simulator to be querying at least one database (see col. 4, lines 3-8, "statistical base") to generate at least one secondary bias value that is based on the corresponding primary bias value and the response to the query.*), wherein each secondary bias value is associated with a particular alternative diagnosis alternative of the set of alternative diagnoses (*see above*,

Art Unit: 2121

Examiner interprets "each branch of the tree created by the simulator" to be a set of alternative diagnoses for a particular alternative diagnosis alternative.), and reflects the expert prior conception of the degree of predictive value of the query and response for the particular alternative diagnosis alternative relative to others (see col. 3, lines 51-55 and col. 4, lines 42-54, Examiner interprets "The chi square test is used to determine whether a given variable is significant in the expert's choice of responses to the questions..." to mean that a given variable including a bias value reflects, by its significance, the expert's prior conception of the degree of predictive value of the query and response for the particular alternative diagnosis.), and wherein ranking is based, at least in part, on the secondary bias values, or at least in part on a combination of the primary and secondary bias values (see col. 10, lines 3-12, Examiner interprets "recommendations" to be alternative diagnoses and "the modal path" to be path through the decision tree with the highest relative likelihood, based at least in part on the set of primary bias values (i.e., input parameters)).

It would have been obvious at the time the invention was made to persons having ordinary skill in the art to combine *Ridgeway et al.* with *Altschuler et al.* to a decision making structure that may be interrogated by entering a situation to be analyzed. A path an expert would take through the decision making structure is predicted by determining the probability of the expert's response at each node in the structure to arrive at an output action. A plurality of structures may be established, one for each individual expert, allowing interrogation of any or all of the decision making structures.

Art Unit: 2121

11. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Ridgeway et al.*

Regarding claim 22. (Previously presented) *Ridgeway et al.* teach the apparatus of claim 21, further comprising a user database, comprising user information (*see Fig. 1, item 142 and col. 9, lines 18-25, Examiner interprets "usage trace data record 142 includes user information (which may correspond to the user ID data 106...)" to comprise a user database, comprising user information.*), wherein the program is operative with the processor (*see col. 18, lines 6-20, Examiner interprets "program instructions for implementing at least a portion of the process of the present invention" to be the program is operative with the processor to store, access and update user information when new user information is received.*) to store, access and update user information when new user information is received (*see col. 8, lines 10-48, Examiner interprets "Each of the distributed servers of the Internet site will generate a usage log 102. Alternatively, a centralized usage log may be compiled based on usage information from the distributed servers. A usage log 102 will include records 104 which include information of a user (or client)..." to mean the program is operative with the processor to store, access and update user information when new user information is received.*).

Regarding claim 23. (Previously presented) *Ridgeway et al.* teach the apparatus of claim 21, wherein the program is further operative with the processor to track the user information (*see col. 19, lines 14-23, Examiner interprets "logging usage" to mean tracking user (usage) information.*).

Response to Arguments

Applicant's arguments, see Remarks, filed August 16, 2006, with respect to the rejection of claims 6-10, 12-19, and 21-25 under 35 U.S.C. §101 have been fully considered and are not persuasive. Applicant has not set forth a practical application that produces a real world result.

Applicant's argument that Altschuler is teaching away from the invention is noted. However, from an analysis of the claims, the subject matter set forth therein is not specific enough to exclude the method of Altschuler. Altschuler does disclose the use of a bias value that is directly associated with a particular query. How the association is made is not set forth in the claims. It should be noted that this is not meant to be an invitation to amend since it is not considered that favorable consideration would be given to such a claim.

Applicant's arguments with respect to the rejection of claims 6-25 under 35 U.S.C. §103 have been considered but are moot in view of the new ground(s) of rejection.

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan H. Brown, Jr. whose telephone number is 571-272- 8632. The examiner can normally be reached on M-F 0830-1700. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 571-

Art Unit: 2121

272-3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Anthony Knight
Supervisory Patent Examiner
Tech Center 2100

Nathan H. Brown, Jr.
November 16, 2006